

WHAT IS CLAIMED:

1. A heavy-duty demolition apparatus for attachment to the boom structure and hydraulic system of an excavator, comprising:

(a) a lower jaw and an upper jaw and pivot means interconnecting the jaws together, means for attachment to the boom structure of the excavator, the upper jaw having an upper shear blade, the lower jaw having at least one lower shear blade, the lower jaw also having a rigid guide blade lying along the lower shear blade and in spaced relation therewith, the outer ends of the shear blade and guide blade being adjacent each other, and a tie plate securing the outer ends of the lower shear blade and the guide blade together, further comprising an open slot between the lower shear blade and the adjacent guide blade to receive the upper shear blade therein, and the upper jaw having means for attachment to the hydraulic system of the excavator for closing and opening the upper jaw relative to the lower jaw; the lower jaw and the upper jaw shearing a workpiece when the upper jaw is closed upon the lower jaw; and

(b) An indexable, rotatable cross blade removably mounted to the inside of the tie plate substantially transverse to the lower shear blade and to the guide blade, the cross blade having four cutting surfaces for successive exposure and shearing.

2. The heavy-duty demolition apparatus of claim 1, wherein the cross blade and the tie plate form a first angle therebetween.

3. The heavy-duty demolition apparatus of claim 2, wherein the first angle is acute.

4. The heavy-duty demolition apparatus of claim 3, wherein the first angle is between one degree and thirty degrees.

5. The heavy-duty demolition apparatus of claim 4, wherein the first angle is between one degree and twenty degrees.

6. The heavy-duty demolition apparatus of claim 5, wherein the first angle is about ten degrees.

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7. The heavy-duty demolition apparatus of claim 1, further comprising primary and secondary lower shear blades. The primary blade lying closest to the pivot and being approximately twice as long as the secondary blade.

8. The heavy-duty demolition apparatus of claim 7, wherein each of the two lower shear blades has four cutting edges rotatably mounted on the lower jaw to successively bring each of the four cutting edges into position for shearing the workpiece.

9. The heavy-duty demolition apparatus of claim 1, further comprising two upper shear blades, each having four cutting surfaces.

10. The heavy-duty demolition apparatus of claim 1, the upper jaw further comprising a replaceable tip at the end of the upper jaw distal from the pivot means.

11. The heavy-duty demolition apparatus of claim 10, wherein the replaceable tip further comprises a dovetail portion interlocking with a mortise portion on a blade tip seat on the upper jaw.

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12. A heavy-duty demolition apparatus for attachment to the boom structure and hydraulic system of an excavator, comprising:

(a) a lower jaw and an upper jaw and pivot means interconnecting the jaws together, means for attachment to the boom structure of the excavator, the upper jaw having an upper shear blade, the lower jaw having at least one lower shear blade, the lower jaw also having a rigid guide blade lying along the lower shear blade and in spaced relation therewith, the outer ends of the shear blade and guide blade being adjacent each other, and a tie plate securing the outer ends of the lower shear blade and the guide blade together, further comprising an open slot between the lower shear blade and the adjacent guide blade to receive the upper shear blade therein, and the upper jaw having means for attachment to the hydraulic system of the excavator for closing and opening the upper jaw relative to the lower jaw; the lower jaw and the upper jaw shearing a workpiece when the upper jaw is closed upon the lower jaw; and

(b) an indexable, replaceable piercing and shearing tip removably mounted in a seat at the distal end of the upper jaw.

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13. The heavy-duty demolition apparatus of claim 12, further comprising an indexable, rotatable cross blade removably mounted to the inside of the tie plate substantially transverse to the lower shear blade and to the guide blade, the cross blade having four cutting surfaces for successive exposure and shearing.

14. The heavy-duty demolition apparatus of claim 13, wherein the cross blade and the tie plate form a first angle therebetween between one and thirty degrees.

15. The heavy-duty demolition apparatus of claim 12, further comprising primary and secondary lower shear blades, the primary blade lying closest to the pivot and being approximately twice as long as the secondary blade.

16. The heavy-duty demolition apparatus of claim 12, wherein the replaceable tip further comprises a dovetail portion interlocking with a mortise portion on a blade tip seat on the upper jaw.

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17. A heavy-duty demolition apparatus for attachment to the boom structure and hydraulic system of an excavator, comprising:

(a) a lower jaw and an upper jaw and pivot means interconnecting the jaws together, means for attachment to the boom structure of the excavator, the upper jaw having an upper shear blade, the lower jaw having at least one lower shear blade, the lower jaw also having a rigid guide blade lying along the lower shear blade and in spaced relation therewith, the outer ends of the shear blade and guide blade being adjacent each other, and a tie plate securing the outer ends of the lower shear blade and the guide blade together, further comprising an open slot between the lower shear blade and the adjacent guide blade to receive the upper shear blade therein, and the upper jaw having means for attachment to the hydraulic system of the excavator for closing and opening the upper jaw relative to the lower jaw; the lower jaw and the upper jaw shearing a workpiece when the upper jaw is closed upon the lower jaw;

(b) An indexable, rotatable cross blade removably mounted to the inside of the tie plate substantially transverse to the lower shear blade and to the guide blade, the cross blade having four cutting surfaces for successive exposure and shearing; and

(c) An indexable, replaceable piercing and shearing tip removably mounted in a seat at the distal end of the upper jaw.

18. The heavy-duty demolition apparatus of claim 17, wherein the cross blade and the tie plate form a first angle therebetween between one and thirty degrees.

19. The heavy-duty demolition apparatus of claim 17, further comprising shear blades, one being a primary shear blade lying distal from the tie plate and the other being a secondary shear blade lying adjacent to the tie plate.

20. The heavy-duty demolition apparatus of claim 17, wherein the replaceable tip further comprises a dovetail portion interlocking with a mortise portion on the upper jaw.

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